

IN THE CLAIMS

Please amend the claims as follows:

1. A coated article comprising:

✓ a temperature-sensitive substrate having a melting point lower than glass;

an anti-reflection coating including a plurality of layers substantially transparent to visible light, at least two [one] of said layers being a [DC] reactively sputtered material having a refractive index higher than said substrate and between approximately 1.9 and 2.2 and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, ^{ITO} antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide, and at least one other layer having a refractive index lower than said substrate.

6. (Canceled)

7. The article of claim 1 wherein said plurality of layers includes four layers designated the first, second, third, and fourth layers in consecutive numerical order beginning with the layer farthest from the substrate,

said first layer substantially composed of silicon dioxide and having a refractive index lower than said substrate and having an optical thickness of about one-quarter wavelength at a wavelength between 480 and 560 nanometers,

said second layer having a refractive index higher than said substrate and between approximately 1.9 and 2.2 and having an optical thickness between about one-quarter and one-third of a wavelength at a wavelength between 480 and 560 nanometers,

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said third layer having a refractive index lower than said second layer,
said fourth layer having a refractive index greater than said third layer,
said third and fourth layers having a total optical thickness less than one-quarter wavelength at a wavelength between 480 and 560 nanometers, and [at least one of] said second and fourth layers being said selected sputtered material.

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8. A process for making a coated article, comprising the steps of:
providing a temperature-sensitive substrate [surface] having a melting point lower than glass and a surface for receiving an anti-reflection coating;
depositing [disposing] an anti-reflection coating including a plurality of layers substantially transparent to visible light on said surface, said depositing [disposing] step including the steps of DC reactively sputtering at least two layers of material selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped, indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide, and having an index of refraction between approximately 1.9 and 2.2; and
depositing at least one other anti-reflection coating layer having a refractive index [different from] lower than said DC reactively sputtered material.

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14. The article of claim ⁸~~12~~ [13] wherein said DC reactively sputtered material is tin oxide.

15. The article of claim ⁸~~12~~ [13] wherein said DC reactively sputtered material is tin-doped indium oxide.

16. (Canceled)

17. The article of claim 11 wherein said plurality of layers includes four layers designated the first, second, third, and fourth layers in consecutive numerical order beginning with the layer farthest from the substrate,

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said first layer substantially composed of silicon dioxide with [having] a refractive index lower than said substrate and having an optical thickness of about one-quarter wavelength at a wavelength between 480 and 560 nanometers,

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said second layer having a refractive index higher than said substrate and between approximately 1.9 and 2.2 and having an optical thickness between about one-quarter and one-third of a wavelength at a wavelength between 480 and 560 nanometers,

said third layer having a refractive index lower than said second layer,

said fourth layer having a refractive index greater than said third layer,

said third and fourth layers having a total optical thickness less than one-quarter wavelength at a wavelength between 480 and 560 nanometers, and [at least one of] said second and fourth layers being said selected sputtered material.

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Canceled)

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Canceled)

Add new claims 33-46 as follows:

33. An article comprising:

(a) a temperature-sensitive substrate having a melting point lower than glass; and

(b) an anti-reflection coating comprising a plurality of layers substantially transparent

to visible light, wherein;

(1) a first layer and a third layer are substantially composed of silicon dioxide;

and

(2) a second layer and a fourth layer have refractive indices between

approximately 1.9 and 2.2, and wherein the second and fourth layers are each substantially

composed of and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-

doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide.

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34. ²⁶ The article of claim 33 wherein the temperature-sensitive substrate is plastic.

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35. The article of claim 33, wherein the article has a luminosity of between approximately .18 and .22.

36. The article of claim 33, wherein the second layer has a thickness of between approximately 76.11 and 78.13 nm.

37. The article of claim 33, wherein the fourth layer has a thickness of between approximately 18.64 and 22.83 nm.

as
38. A method for providing an anti-reflection coating to a substantially plastic substrate, wherein the coating comprises a first, second, third and fourth layer in consecutive numerical order, each layer being substantially transparent to visible light, with the first layer being farthest from the substrate, comprising:

depositing the fourth layer by reactive sputtering, wherein the fourth layer is substantially composed of tin-doped indium oxide having an index of refraction between approximately 1.9 and 2.2;

depositing the third layer on the fourth layer by reactive sputtering, wherein the third layer is substantially composed of silicon dioxide;

depositing the second layer on the third layer by reactive sputtering, wherein the second layer is substantially composed of tin-doped indium oxide having an index of refraction between approximately 1.9 and 2.2; and

depositing the first layer on the second layer by reactive sputtering, wherein the first layer is substantially composed of silicon dioxide.

39. An anti-reflection coating for a substantially plastic substrate comprising:

- C (1) a first layer-substantially composed of silicon dioxide;
- C (2) a conductive second layer, closer to the substrate than the first layer,
substantially composed of tin-doped indium oxide having an index of refraction between
approximately 1.9 and 2.2;
- C (3) a third layer, closer to the substrate than the second layer, substantially
composed of silicon dioxide; and
- C (4) a conductive fourth layer, closer to the substrate than the third layer,
substantially composed of tin-doped indium oxide having an index of refraction between
approximately 1.9 and 2.2,

wherein the first, second, third and fourth layers are substantially transparent to visible light.

SiO₂

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40. A method for providing an anti-reflection coating to a substantially plastic substrate, wherein the coating comprises a first, second, third and fourth layers in consecutive numerical order with the first layer being farthest from the substrate, wherein each layer is substantially transparent to visible light, comprising:

depositing the first and third layers by reactive sputtering, wherein the first layer is substantially composed of silicon dioxide; and

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depositing the second and fourth layers by reactive sputtering, wherein the second and fourth layers have an index of refraction between approximately 1.9 and 2.2 and are each substantially composed of and selected from the group consisting of tin oxide, indium oxide, zinc oxide, tin-doped indium oxide, antimony-doped tin oxide, tin-bismuth oxide, and tin-zinc oxide.

36 41. ³⁵
The method of claim 40, wherein the act of depositing the second and fourth layers comprises depositing the second layer such that the layer is between approximately 76.11 and 76.35 nm and depositing the fourth layer such that the layer is between approximately 18.64 and 22.83 nm.

37 42. ³⁵
The method of claim 40, wherein the act of depositing the first silicon dioxide layer comprises depositing the layer such that the layer is between approximately 92.02 and 94.16 nm.

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Table 4

43. An anti-reflection coating for a plastic substrate comprising:
a plurality of layers substantially transparent to visible light, at least one of said layers
having a refractive index higher than said substrate and selected from the group consisting of tin
oxide, indium oxide, zinc oxide, tin-doped oxide, tin-bismuth oxide and tin-zinc oxide; and
at least one other layer having a refractive index lower than said substrate wherein said at
least one layer is closer to said substrate than said at least one other layer and said at least one
layer and said at least one other layer are adjacent to one another.

44. The coating of claim 43 wherein said at least one layer includes two layers and wherein
said at least one other layer is positioned between and adjacent to each of said two layers.

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Table 4

45. An antireflective coating for a substantially plastic substrate consisting essentially of:
a plurality of layers substantially transparent to visible light and selected from the
group consisting of tin oxide, indium oxide, zinc oxide, tin-doped oxide, tin-bismuth
oxide and tin-zinc oxide; and
at least one other layer having a refractive index lower than each of said plurality
of layers wherein one of said other layers is disposed between adjacent ones of said
plurality of layers.

46. The coating of claim 45 wherein said other layer is silicon dioxide.